

STAT protein or a fragment of said second STAT protein;

wherein said fragment of said first STAT protein comprises the N-terminal domain of said first STAT protein;

wherein said fragment of said second STAT protein comprises the N-terminal domain of said second STAT protein;

wherein the association is dependent upon the N-terminal domain of said first STAT protein, and the N-terminal domain of said second STAT protein; and

wherein a test compound which enhances the association is identified as a drug that enhances the interaction between adjacent activated STAT dimers.

62. (Amended Once) A method for identifying a drug that enhances the ability of adjacent STAT protein dimers to interact comprising measuring the ability of a test compound to enhance the association of a fragment of a first STAT protein with a second STAT protein or a fragment of said second STAT protein dimer;

wherein said fragment of said first STAT protein consists essentially of the N-terminal domain of said first STAT protein;

wherein said fragment of said second STAT protein comprises the N-terminal domain of said second STAT protein;

wherein the association is dependent upon the N-terminal domain of said first STAT protein, and the N-terminal domain of said second STAT protein; and

wherein a test compound which enhances the association is identified as a drug that enhances the interaction between adjacent activated STAT dimers.

Please add the following new claims:

66. (New) A method for identifying a drug that inhibits the ability of adjacent STAT protein dimers to interact comprising measuring the ability of a test compound to inhibit the association of a first STAT protein or a fragment of said first STAT protein with a second STAT protein or a fragment of said second STAT protein;

wherein said fragment of said first STAT protein comprises the N-terminal domain of said first STAT protein;

wherein said fragment of said second STAT protein comprises the N-terminal domain of said second STAT protein;

wherein the association is dependent upon the N-terminal domain of said first STAT protein, and the N-terminal domain of said second STAT protein; and

whereas a test compound that decreases the association is identified as a drug that inhibits the interaction between adjacent activated STAT dimers.

67. (New) The method of claim 66, wherein said first STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 3, STAT 4, STAT 5A, STAT 5B, and STAT 6.

68. (New) The method of claim 66 wherein said second STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 3, STAT 4, STAT 5A, STAT 5B, and STAT 6.

69. (New) The method of claim 66 wherein said first STAT protein and said second STAT protein are the same STAT protein.

70. (New) A method for identifying a drug that inhibits the ability of adjacent STAT protein dimers to interact comprising measuring the ability of a test compound to inhibit the association of a fragment of a first STAT protein with a second STAT protein or a fragment of said second STAT protein dimer;

wherein said fragment of said first STAT protein consists essentially of the N-terminal domain of said first STAT protein;

wherein said fragment of said second STAT protein comprises the N-terminal domain of said second STAT protein;

wherein the association is dependent upon the N-terminal domain of said first STAT protein, and the N-terminal domain of said second STAT protein; and

whereas a test compound that decreases the association is identified as a drug that inhibits the interaction between adjacent activated STAT dimers.

71. (New) The method of claim 70, wherein said first STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 3, STAT 4, STAT 5A, STAT 5B, and STAT 6.

72. (New) The method of claim 70, wherein said second STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 3, STAT 4, STAT 5A, STAT 5B, and STAT 6.

73. (New) The method of claim 71, wherein said first STAT protein and said second STAT protein are the same STAT protein.

74. (New) The method of claim 70, wherein said first STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 4, and STAT 6.

75. (New) The method of claim 70, wherein said second STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 4, and STAT 6.

5 76. (New) The method of claim 56 wherein said first STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 4, and STAT 6.

6 77. (New) The method of claim 56 wherein said second STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 4, and STAT 6.

78. (New) The method of claim 62 wherein said first STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 4, and STAT 6.

79. (New) The method of claim 62 wherein said second STAT protein is selected from the group consisting of STAT 1, STAT 2, STAT 4, and STAT 6.